

An account of the Diseases of Harrisburg Pa.
and its vicinity, from July 1821 to July 1822 inclusive,
which Joseph L. Smith submits to the examination
of the Medical Faculty of the University of Penn-
sylvania, for the degree of Doctor of Medicine.

Passed March 11th. 1823

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An. Account &c. &c.

The weather during the month of July was generally pleasant, accompanied with frequent showers of rain, the wind variable, and the mean height of the mercury at three observations (^{and} agreeably to ^{the} thermometer) was seventy nine degrees and a half. About the twelfth of this month, fever began to make their appearance, both intermittent and remittent; but perhaps the number of the former was the greater. It appeared more particularly to seize on those who had been the subjects of its attack the preceding season, and in whom a strong predisposition to the disease still remained. On the twenty third and twenty fourth days of the month there fell a very considerable quantity of rain, so much as completely to saturate the ground; from this time the number of cases of fever began to increase.

During the month of August the weather generally was very warm, the mercury on the sixteenth stood as high as ninety two, and the mean temperature of the month was eight

to me. The wind the greater part of the month was from the North West, the ground became very dry and dusty, no rain having fallen within the last twenty days. From this time sickness seems to progress rapidly, which may we think very justly be attributed to the exhalations arising from the decomposition of vegetable substances. The uninterrupted heat of the sun for so long a time, acting on the vegetable matter and thereby causing more rapid putrefaction, consequently the atmosphere becoming more loaded with miasmata. It has been sufficiently proven, by writers on this subject, that the influence arising from putrid vegetable substances is a very productive source of fevers. However, when the heat of the sun is not with showers of rain, vegetable decomposition after a while ceases to progress and this for a time suspends the miasmatic cause of the disease: This argument appears to derive some support from the fact, that after the extreme warm weather unaccompanied with rain had continued for a certain time, there was a suspension of disease at this place, which was immediately removed on the accession of wet weather.

From the fourth to the twelfth, there appeared to

be a suspension of the disease, or rather, no new cases occurring; after this date however, the disease appeared to be on the increase during the remainder of the month.

On the tenth of the following month, September, the mercury stood at eighty nine, and fluctuated between that and sixty six during the remainder of the month. The weather this month was cloudy and attended with frequent showers of rain. This appeared to give activity to the causes already existing in promoting the disease, which now began to extend rapidly, new cases occurring every day. About the twentieth the disease evidently began to decline, though not ascribable to any visible cause, as the weather generally was very warm for this season of the year. Towards the close of the month however the disease again began to increase, and as no cause could be assigned for its recurrence, neither, could any be ascribed to which its increase might be attributed: though the weather became cooler, it had no influence in arresting the disease, on the contrary it appeared to increase the fever, but without affecting materially its character.

The weather of the following month, October, was

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variable but the transitions were not very sudden; the mercury fluctuated between seventy six and forty nine during the month. The wind the greater part of the month was from the North West, which generally indicates an absence of rain; the weather however was pleasant for the season. Fevers appeared to be on the increase in the early part of the month, but with an alteration in their character; the number of intermittents increased, and remittents were more disposed to be protracted in their course, and to run into typhus. The fever of this period appeared to be of a lower grade than during the early part of the season; the arterial action was much less and the disease was always protracted for a much longer time. About the twenty second of the month the fever began to decline, but very few new cases having occurred within the last few days. Those of the remittent and ^{some} continued, began to change into intermittent. Frost appeared on the eighteenth, and from this time the fever began to subside rapidly, and by the end of the month had in a great degree disappeared.

In noticing these forms of fever and the other dis.

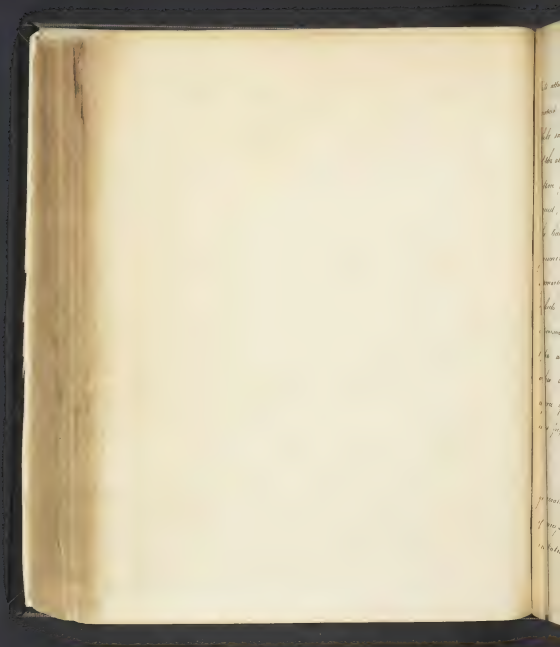
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cases occurring within the period we have prescribed to ourselves, it is not our intention to enter into any discussion relative to their various causes &c, but merely to give some account of their peculiar symptoms and the remedies that proved most successful in their treatment.

These forms of fever were all of a highly bilious character, and their very general prevalence is novel in this district of country. It did not confine itself to any particular age or sex but attacked all ages and sexes equally. In some places so generally did it prevail, that scarcely a family escaped, and in some cases every member of the family was confined at the same time and rendered unable to lend each other the smallest assistance. This was more particularly the case in some of the valleys above this place which had therefore been remarkably healthy.

This disease did not observe any regularity in the early symptoms of its attack, sometimes it came on without any preliminary symptoms, but more frequently some slight indisposition was present for some days previous to a confirmed attack. There was a peculiarity in the manner of



its attacks in some cases, which I do not remember to have seen
noted by any writer on the subject, namely: the patient often
felt some degree of indisposition for several days, but on the day
of the attack, or the day preceding it, would feel perfectly well.

More frequently however the patient would appear dull and lan-
guid, have an aversion to active exercise, head ache, pains in
the back and extremities, a sensation of weariness, sighing and
gunning; there was also loss of appetite, nausea, sickness at the
stomach, and frequently ^{signalling of bilious matter}. The tongue was coated with fur,
which was sometimes white, but more frequently of a bilious
appearance. In some instances the fever was of the intermittent
type and tertian order having very severe exacerbations every
other day but always leaving the patient with a considerable
degree of fever during the interval of the paroxysms. The pulse
was frequent, quick, and full, but not commonly hard.

Treatment.

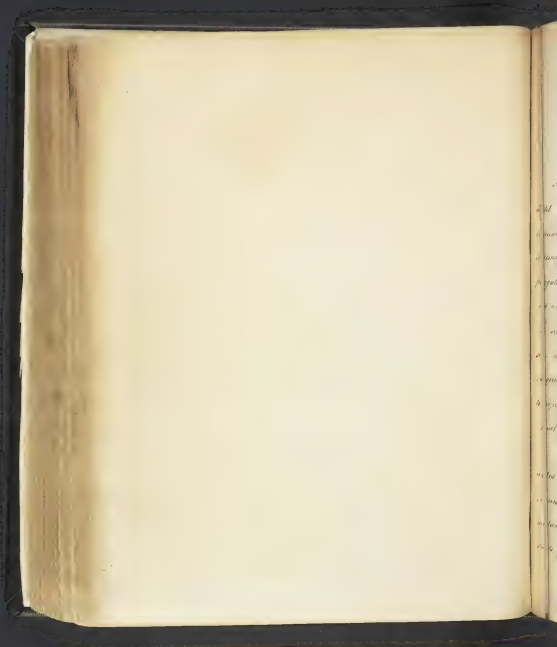
When the disease would admit of it, for it by no means
generally did, the treatment was commenced by bleeding, and
if necessary it was repeated. This had the effect of calming
irritation, lessening febrile excitement, and laying the system



even to subsequent remedies which always appeared to operate more effectually. After this, the next step in the treatment was to give an emetic, and for this purpose the tartarised antimony was preferred; but if the patient was of a delicate habit the species was employed, sometimes exhibited alone, at other times in combination with the tartarised antimony; a scruple of the former with one or two grains of the latter was usually given at a dose.

By the exhibition of an emetic in the early stage, the fever was often completely arrested and always rendered more manageable in the subsequent stages. From the highly bilious nature of the disease, and the speedy accumulation of bile in the stomach, emetics were frequently serviceable in the treatment.

The emetic was followed by the mercurial cathartics, as calomel and jalap or calomel and epsom salt, a favorite prescription when the stomach was irritable, was twelve or fifteen grains of calomel divided into three parts, one of which was given every hour; two hours after taking the last, the following mixture was given



Rx Epsom salt ʒij

Calomel Maggnes. ʒjss

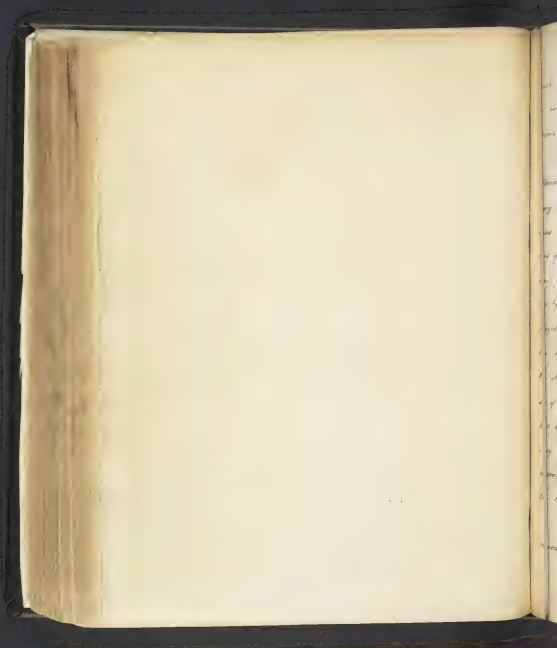
Ess. of Sassafras ʒi

(Notes)

ʒiv etc

An ounce of this mixture was taken every hour, until it operated freely. This prescription had a happy effect in the evacuation of the bile, as it produced copious evacuations without inducing much debility. The mercurial, followed by the saline purgatives, were continued till all offensive matter was removed, and the stools began to assume a healthy appearance. The system commonly appeared depressed so long as this offensive matter remained in the bowels, and as a natural consequence rose after its removal, and it was frequently necessary to repeat the purging during the whole course of the treatment.

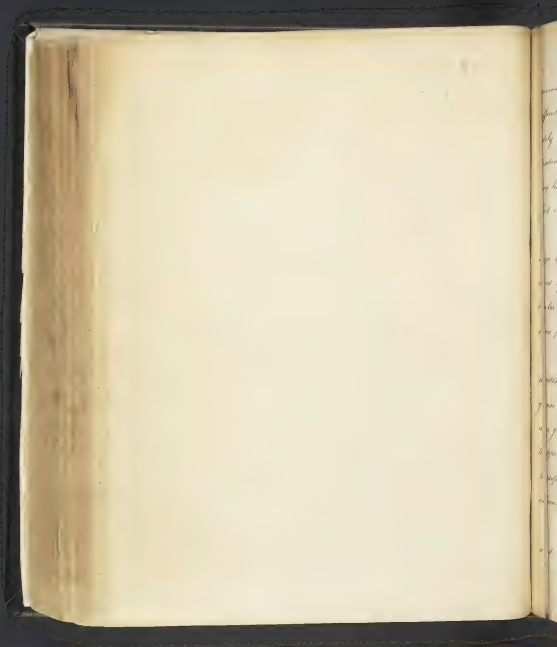
When the stomach and bowels were completely evacuated, if any intermission did not take place, diaphoretic and emetics were resorted to, as the antimonials, the saline or mucous mixture, either alone or combined with the spirits of nitre. The spirits of nitre alone in doses of a tea-spoon full every hour, assisted



with copious draughts of an infusion of Virginian snake-root was a very effectual diaphoretic. When it was desired to have the spirits of nitre more stimulating, camphor was dissolved in it.

Sometimes there was so much irritability of the stomach present, as to prevent the exhibition of cathartics, any thing of the kind being rejected by vomiting. In these cases it was first necessary to calm the irritability of the stomach, and often small doses of calomel, half a grain or a grain every three hours, brought it, low and low water and milder agents, added by fermentations to the stomach, since the nuxomies usually employed. When all other means failed, a blister was applied over the whole epigastric region, which were seldom failed to calm the stomach and enable it to retain the medicine. In some cases of this kind a small quantity of blood taken from the arm, had a very good effect in tranquillizing the stomach; it was necessary to obtain as much as possible from drink, as it always aggravated the disorder, this was sometimes hard to become as the thirst was frequently insatiable.

In some instances when the stomach was affected with nausea and sickness, a peculiar sympathetic affection was



communicated to the lungs, the respiration became oppressed and difficult, together with tightness across the chest, this was very speedily relieved by combinations of opium and camphor, in the proportion of three of the former and half a grain of the latter, every half or every hour; brandy toddy likewise had a very good effect in relieving it.

The drinks principally used, during the fever, were sage and balm teas, least water, lemonade, camomile water, and apple water. This last is best made, by pouring boiling water on raw apples cut into thin slices, this will be found more pleasant than when the apples are first roasted.

As soon as an intermission was obtained, leeches were resorted to, and the powdered Peruvian bark was prescribed. It was given in substance if the stomach would receive it, if not it was given in decoction combined with an aromatic. It sometimes happened, that the bark could not be used, evidently tending to depress the stomach, in these cases an infusion of quassia or colombo was substituted.

If the fever still continued after the stomach and bowels were properly evacuated, blisters were resorted to

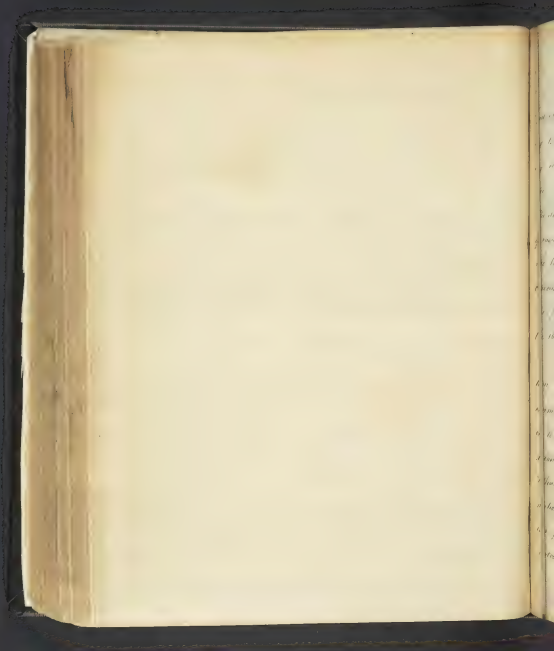


and at the same time unequivocally useful, and very frequently brought on an intermission. When the fever had been neglected in the early stage, or improperly treated, it was apt to run into typhus, and was then met with its appropriate remedies.

The plan of treatment just described, was very generally successful but during convalescence a great degree of rest was necessary to prevent a relapse.

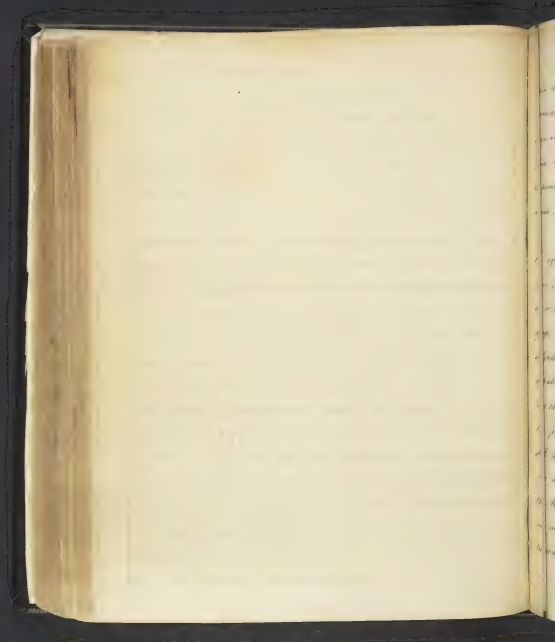
The months of November, December, and January, continued remarkably healthy, there was scarcely disease of any kind except relapses of intermittents the weather was sultry and wet and small quantities of snow fell at different times.

The greater part of February continued healthy, but not so much so as the three preceding months, the weather towards the latter part became changeable, predisposing to inflammatory diseases, there were principally catarrhal affections among adults and synocha among children. The mercury fluctuated between sixty one and sixty seven degrees during the month - on the eighteenth a snow fall which was about eight inches deep.



The month of March brought on more disease than had prevailed all the winter months, this no doubt was owing to the changeable state of the weather the mercury rising considerably, ^{some days} and falling as rapidly in a few days, the mean temperature of the month was fifty two degrees. The diseases of this month were all inflammatory, a number of cases of inflammation of the throat occurred, particularly of the tonsils, this however was not an obstinate disorganizing exudation so as to produce some tendency to syphilis. It, merging with the neutral salts, and a blister applied to the throat, were necessary sufficient to induce it.

But a disease made its appearance about the same time of a more serious nature, this was typhoid fever. It commenced towards the latter part of February and progressed to a considerable extent during the month of March; this disease was more particularly confined to the town. The name typhoid has been added to this species of pneumonic inflammation, from the circumstance of its having the symptoms of intermitting fever superadded to those of pleurisy, and the treatment partook of that which was proper in both these diseases.



even common schistula. There are several ways in which
permanence inflammation may terminate, either by resolution
suppuration, or gangrene whether either of the two latter ever took
place, we are unable to say, as examinations after death, were not
permitted, but the first very rarely occurred; if left to itself the
disease, with few exceptions, would terminate in death.

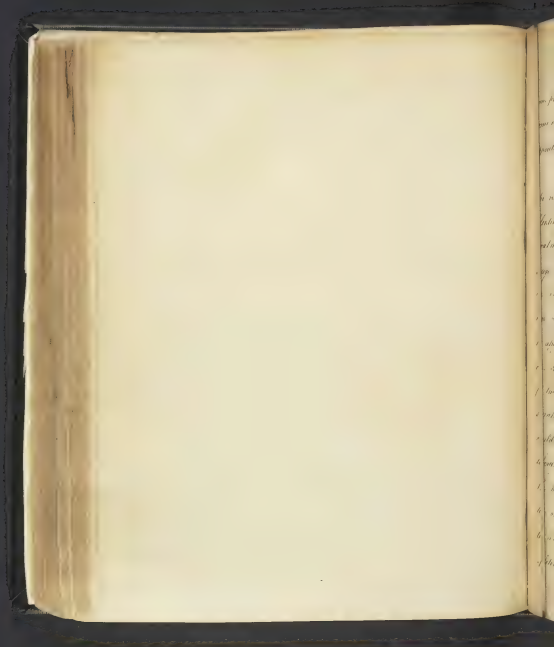
Diseases of this character rarely befalls persons under
the age of puberty, and are more generally confined to the robust.
This species on the contrary, was not confined to any particular
age or sex; I have seen the disease in children under twelve years
of age, and the weak and debilitated were more frequently the
subjects of its attack than the robust. There was one description
of patients that was more subject to the disease than any other,
and these were such as had had several attacks of biliousness, ever
the preceding fall, and in whom a strong bilious predisposition
still remained. This was a retention of bile was a peculiarity attend-
ing almost every disease which made its appearance, now was
the bilious diathesis confined to the umb, but was also visible
in many when no symptom of indisposition was evident. The
liver was enlarged was often tinged of a bilious hue in persons



apparently in persons apparently in perfect health. It may not
highly suppose that such persons would have a more stormy, &c.
disposition to bilious affections. This highly bilious character
of a great number of our diseases, called more for purgatives than
the lancet, though in some cases it was a very useful auxiliary
and in this it was absolutely unimportant.

In this ^{there was always a fever} disease, on the side, and the top was the side
most frequently affected; there was cough, difficult respiration, nau-
sea, and gastric distress; head ache, tumid countenance, the eyes
appeared flushed, and the tongue was coated with bilious
matter and very frequently there was a considerable degree of
fever present. The cough was generally moist and the mat-
ter expectorated was streaked with blood; the pain in some
cases was very acute, so as to cause great distress to the patient
and prevented him from lying on his side; in other cases
the pain was more obtuse and sometimes the lungs app-
eared to be sympathetically affected; the primary disease be-
ing in the liver.

The pulse was frequent, small, and quick but
very seldom hard. This state of the pulse was supported by



some practitioners to forbid the use of the lancet, and in some cases this error proved fatal to the patient, though the opposite extreme was equally improper.

In treating this disease we adopted as our guide the rule, that "inflammation of the lungs always requires bleeding," and when called to a case always commenced the treatment by venesection, (unless forbidden by the advanced stage of the disease, or the prostration of the patient) which in violent cases, was continued until it produced a remission of the pain or symptoms of approaching syncope began to appear; and it was repeated as often as the pain returned. Although it sometimes required a repetition of the lancet for two or three times, the quantity of blood taken was but small. It sometimes happened that but a small quantity could be taken at the first bleeding, by this the pulse was liberated and the next bleeding was more copious. After the bleeding, we gave a dose of calomel and ipecacuanha, ten or fifteen grains of the former to twenty of the latter, which produced both emetic and cathartic effects, thus completely evacuating the stomach and bowels.



If the pain in the side, respiration, and cough were not considerably relieved, the laevul was again ordered to be taken in smaller quantity and the bowels evacuated by opium singly either alone or combined with magnesia.

This species of pleurisy, though it required the bowels to be completely evacuated, but like all other kinds of pneumonia, inflammation, would not bear active purging.

As soon as the more violent symptoms were subsided, a cup blister was applied directly over the seat of the pain. Along with the remedies mentioned, we gave small doses of calomel.

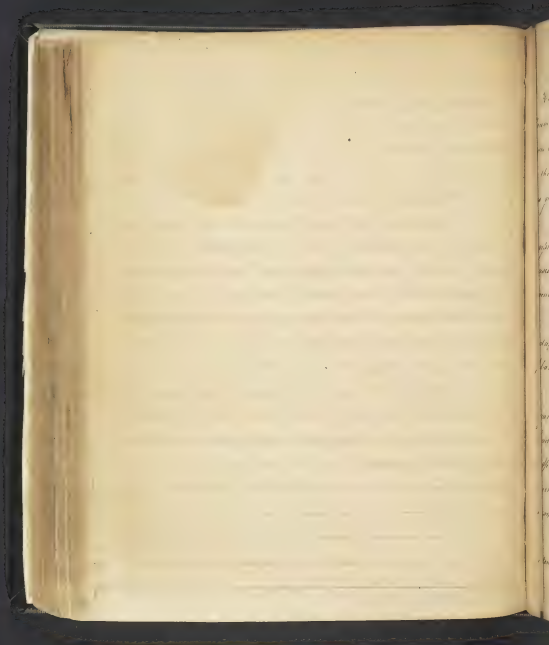
and ipecacuanha combined. — two grains of the latter and one of the former, every two or three hours, by this means the system was brought under the influence of mercury in the early stage of the disease. There was something striking in this combination, it had the effect of subduing the inflammation, relieving the cough, and promoting expectoration. When the cough became loose the following expectorant mixture was used.

R. Polyp. sencha

Extract. hyem.

gum Arab.

Sat. Tact. ana ℥ij. M.



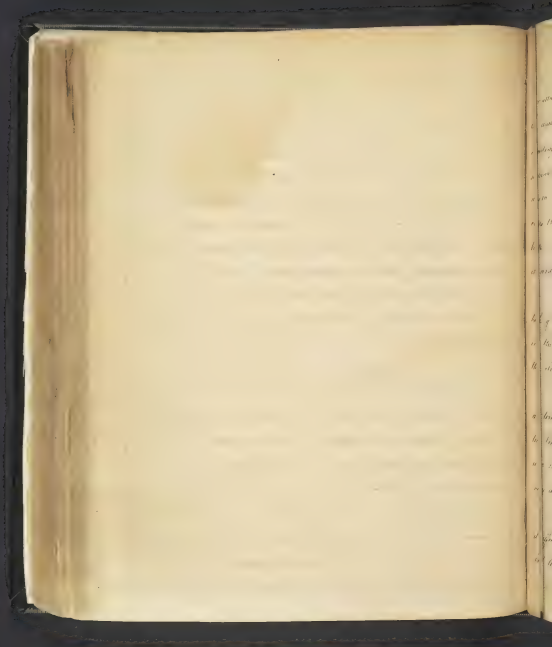
Half a pint of boiling water was put on this and allowed to simmer at the fire for fifteen minutes, the liquor was then strained off and a table spoonful taken away twice a day. Together with these, indigenous drinks given, as gum arabic tea, flowered bread.

Sometimes the cough remained dry, with oppression at the breast, and perious expectorations; in these cases moderate blisters, together with small doses of ipecacuanha, calomel, and opium seldom failed to give relief.

This method of treatment appeared particularly well adapted to the disease as it appeared here, nor could any plan be more successful.

Towards the close of the month this disease began to decline, and in the course of the following month had almost wholly disappeared. The weather this month (April) was frequently cool, but pleasant; there were frequent showers of rain and the medium height of the mercury in the month, was fifty more.

The principal diseases of this month were intermit- tents and these were rather to be considered relapses, than



our attacks, as they were principally confined to those who had had the disease the preceding fall. In some instances they proved exceedingly intractable to all the usual remedies, they would suppress the disease for a time, leaving it always liable to return on the least exposure to wet or cold. In some of these cases the eupatorium was found to answer better than the bark it was first given in strong infusion warm, as to cold, and afterwards cold to act as a tonic.

In the month of May there were a number of cases both of intermittent and remittent fever, these were treated in the same manner as in other seasons. Towards the close of the month this had nearly subsided.

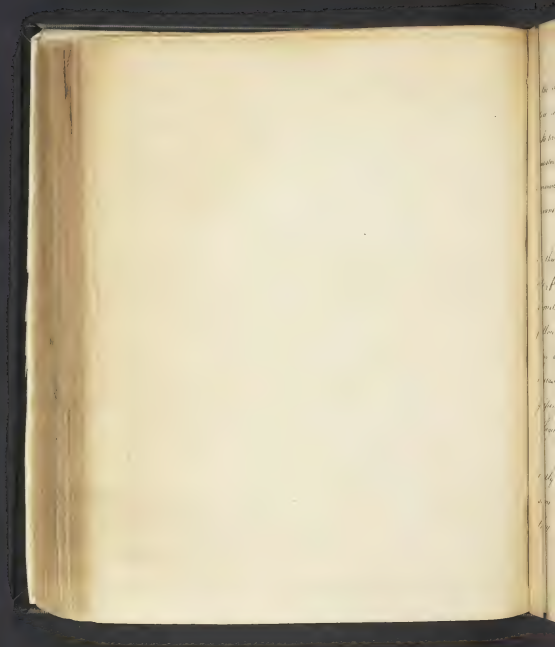
The month of June was warm, the mercury at times standing as high as eighty-nine, and fluctuating between that and sixty-five during the month. There were frequent showers of rain but without, the ground became very dry and the streams of water low.

The diseases of this month were principally bowd affections, these however were of a mild nature requiring but little medicine for their removal. Notwithstanding



the misdeeds of these complaints, they appeared to be the pre-
lude to a disease of a more serious character which began to
prevail the following month, July. This month was very
warm, the mercury on the eighth stood at nearly two and
a-half; the ground became very dry altho
gh there were several showers of rain. Towards the latter
part of the month dysentery began to prevail, and extended so
rapidly as to excite great alarm; it prevailed more extensively
in the vicinity of this place than on the town itself, though
it was by no means exempted. For some directions the disease
moved along swiftly every; acutely, and very frequently the pa-
tients fell victims to the violence of the disease. This was more par-
ticularly the case with children. It had completely supplanted
the fever which usually commenced at this season, as at this time
scarcely a case was to be found unconnected with dysentery.
This fact tends to confirm the idea of dysentery being a
fever turned in upon the bowels.

Many of the fatal terminations of this disease were
owing to neglect in making early application for medical aid.
The cure was attempted by endeavouring to check the frequency



of the evacuations, and for this purpose, a variety of domestic remedies were employed such as brandy, and sugar, strong decoctions of colic bark, and other equally improper remedies; when this was insisted on, the patient frequently died. Experience at length convinced them, that a regular course of medicine was the only means of saving the patient.

The early symptoms of the disease were very similar to those of fever. In many cases the disease ^{was} preceded by loss of appetite, flatulency, costiveness, sickness at the stomach, and sometimes vomiting. At other times it commenced with chills, which were followed by fever of the remittent type; afterwards the griping and frequent desire to stool came on. In some cases, the disease commenced with diarrhoea, but very frequently, the griping and increased desire to stool was present from the beginning.

The appearance of the ^{stool} was various, most frequently they consisted of mucus mixed with blood, and in some cases, to use a popular description among the people, they resembled the "washings of meat."

The natural discharges of the bowels were entirely



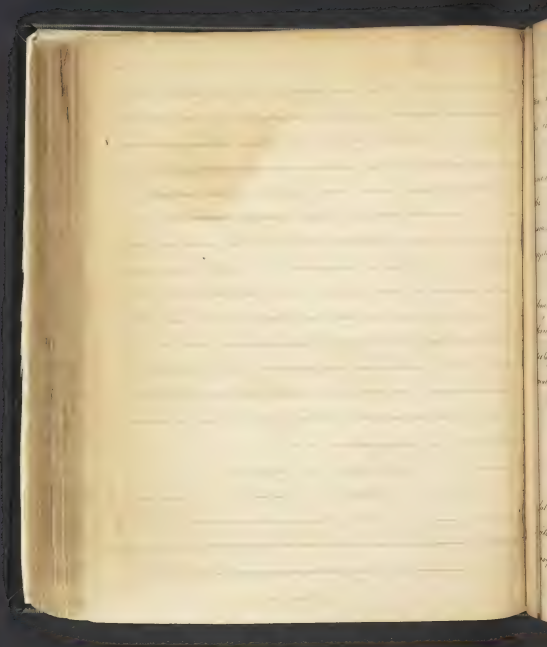
suppressed; when there were discharges from the bowels, other than the peculiar dysenteric discharges, it was either on the form of scybala and then of a dark bilious appearance, or the discharges were natural in consistence, but of a dark red colour, and very offensive to the smell.

The treatment was usually commenced by giving a dose of calomel and rhubarb, and the calomel frequently had to be repeated. The opium salts were then resorted to, and continued until the bowels were thoroughly evacuated. In some cases castor oil was used, but we do not know that it possessed any advantage over the opium salts. Afterwards such medicines were employed as would calm irritation, and determine to the surface; and for this purpose, the following prescription of Gooden Chapman was resorted to.

R. Calomel ℥ss

Opium ℥ss

Quon Opium q℥ss m. To be made into eight powders or pills one of which was given every



two, three, or four hours. This promotes the secretions from the bowels and improves the evacuations.

Topical remedies were also used, as a flannel warmed over the spirits of turpentine and applied over the belly. When it could be had, the warm bath was used. If the disease did not now yield, a blister was applied to the abdomen.

There were other symptoms demanding attention, as tremors and convulsions, which sometimes prevailed through the whole course of the disease, causing much distress to the patient. These were often relieved by the obnoxious material, thus.

R. Castor Oil ℥j

Gum arab. ℥j

Syrup sugar ℥j

Landanum q. s.

Water ℥ij ss. of this a table spoonful was given every two or three hours. When there was much irritability of the stomach the following was a valuable prescription.

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R. Castor Oil ℥j

The whites of two eggs. These were rubbed together in a mortar until ~~mixed~~ thoroughly mixed, afterwards was added,

Loaf sugar ℥j

Laudanum $\frac{ss}{\text{xx}}$

Sione water ℥v. M. This was given in the same manner as the last.

Sometimes the stomach was too irritable to bear any of these remedies; in these cases anodyne injections were substituted. But the best remedy we have ever seen, was an injection of half a pound or a pound of melted fish butter. The butter was obtained fresh by melting common butter, and pouring it into water, which completely separates the salt from it.

The very frequent straining at stool, was apt to cause a protrusion of part of the rectum; in children, this a very true. It was reduced by applying a linen rag, greased with lard, to the part and pressing it gently upwards. To restore tone to the bowels an infusion of columbo or angustura was given.



Dysentery is generally an inflammatory disease giving, in most cases, a fully formed of the cancer; but as it appeared in this place, it would not bear much bleeding. In most cases there was very little fever, and the appearance of the patient denoting bilious accumulation, in addition to the peculiar dysenteric discharges, seemed more particularly to demand the operation of purgatives, and in the great majority of cases, the intention was completely answered by them.

The disease frequently terminated in diarrhoea, and here the extract of jalap in combination with kino or catechu, was very useful. But a remedy which frequently succeeded when all the usual remedies had failed, was the sugar-bala combined with opium and igneamocha, thus.

R. Sugar of Lead q

Opium gr^{ss}

Sugar gr^{ss}ij℥ss Divided into eight

powders one of which was given every three or four hours

The diet required strict attention, an error in the



respect was often followed by a relapse of the disease. It consisted of gum arabic, elm mucilage, arrow root, tapioca, and boiled rice, afterwards rice mush and milk were allowed; but the patient had to return very gradually to his former mode of living. —

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